

=> fil reg  
FILE 'REGISTRY' ENTERED AT 12:33:40 ON 04 FEB 2010  
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STRUCTURE FILE UPDATES: 2 FEB 2010 HIGHEST RN 1204474-62-3  
DICTIONARY FILE UPDATES: 2 FEB 2010 HIGHEST RN 1204474-62-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

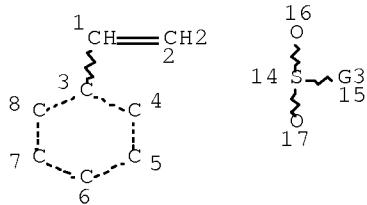
TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

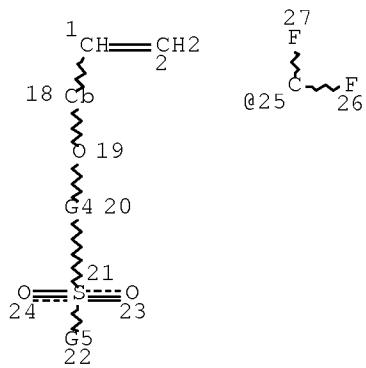
=> d que stat 117  
L6 STR



VAR G3=O/N/X  
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE  
L8 5961 SEA FILE=REGISTRY SSS FUL L6  
L15 STR



REP G4=(1-20) 25

VAR G5=X/O/N

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 18

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 18

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L17 41 SEA FILE=REGISTRY SUB=L8 SSS FUL L15

100.0% PROCESSED 48 ITERATIONS

SEARCH TIME: 00.00.01

41 ANSWERS

=> d his

(FILE 'HOME' ENTERED AT 12:02:27 ON 04 FEB 2010)

FILE 'LREGISTRY' ENTERED AT 12:03:50 ON 04 FEB 2010

L1 STR

FILE 'REGISTRY' ENTERED AT 12:05:56 ON 04 FEB 2010

L2 4 S L1

FILE 'LREGISTRY' ENTERED AT 12:06:56 ON 04 FEB 2010

L3 STR L1

FILE 'REGISTRY' ENTERED AT 12:11:30 ON 04 FEB 2010

L4 0 S L3

FILE 'LREGISTRY' ENTERED AT 12:18:27 ON 04 FEB 2010

L5 STR L3

L6 STR L1

FILE 'REGISTRY' ENTERED AT 12:19:43 ON 04 FEB 2010

L7 50 S L6

L8 5961 S L6 FUL

SAV L8 HU878/A

L9 STR L5

February 4, 2010

10/560,878

3

L10 17 S L9 SSS SAM SUB=L8

FILE 'LREGISTRY' ENTERED AT 12:21:33 ON 04 FEB 2010  
L11 STR L9

FILE 'REGISTRY' ENTERED AT 12:22:46 ON 04 FEB 2010  
L12 STR L11

FILE 'LREGISTRY' ENTERED AT 12:23:51 ON 04 FEB 2010  
L13 STR L12

FILE 'REGISTRY' ENTERED AT 12:29:59 ON 04 FEB 2010  
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L15 STR L13  
L16 3 S L15 SSS SAM SUB=L8  
L17 41 S L15 SSS FUL SUB=L8  
SAV L17 HU878S1/A

FILE 'HCAPLUS' ENTERED AT 12:31:47 ON 04 FEB 2010  
L18 8 S L17

=> fil hcap  
FILE 'HCAPLUS' ENTERED AT 12:33:56 ON 04 FEB 2010  
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FILE COVERS 1907 - 4 Feb 2010 VOL 152 ISS 6  
FILE LAST UPDATED: 3 Feb 2010 (20100203/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d ibib abs hitstr hitind l18 1-8

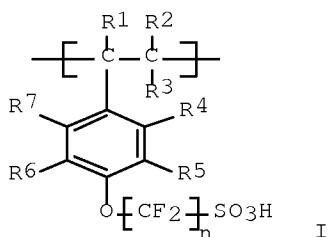
L18 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2009:53923 HCAPLUS Full-text  
DOCUMENT NUMBER: 150:102120  
TITLE: Fuel cell electrolytes and electrolyte

membranes, fuel cell catalyst layers, membrane-electrode assemblies (MEA), polymer electrolyte fuel cells (PEFC), and direct methanol-type fuel cells (DMFC)

INVENTOR(S): Hayano, Tetsuji; Kuromatsu, Hidehisa  
 PATENT ASSIGNEE(S): Kaneka Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2009009828	A	20090115	JP 2007-170310	200706 28
PRIORITY APPLN. INFO.:			JP 2007-170310	200706 28

GI



AB The electrolytes contain repeating units I (R1-R7 = H, Cl, alkyl, chlorinated alkyl, aryl, chlorinated aryl; n ≥ 1 integer) and show excellent proton conductivity and handling performance.

IT 1095000-00-2P

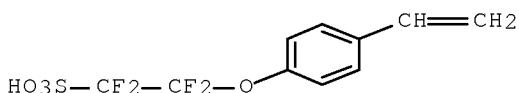
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fuel cell electrolytes containing vinyl fluoroalkylsulfonic acid copolymer)

RN 1095000-00-2 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, sodium salt (1:1), polymer with ethenylbenzene (CA INDEX NAME)

CM 1

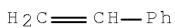
CRN 1094999-99-1  
 CMF C10 H8 F4 O4 S . Na



● Na

CM 2

CRN 100-42-5  
CMF C8 H8



CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)  
IT 1095000-00-2P  
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(fuel cell electrolytes containing vinyl fluoroalkylsulfonic acid copolymer)

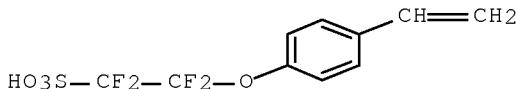
L18 ANSWER 2 OF 8 HCPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2008:1251303 HCPLUS Full-text  
DOCUMENT NUMBER: 149:449161  
TITLE: Electrically conductive polymer compositions for use in organic electronic devices  
INVENTOR(S): Hsu, Che-Hsiung; Skulason, Hjalti  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 17pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20080251768	A1	20081016	US 2008-101517	200804 11
PRIORITY APPLN. INFO.:			US 2007-911670P	P 200704 13

#### ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

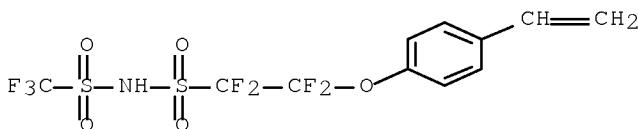
AB A polymer composition comprises ≥1 intrinsically conductive polymer having ≥1 monomer unit comprising a pyridine-fused heteroarom.; and ≥1 fluorinated acid polymer.  
IT 252975-59-0D, copolymers 252975-62-5D,  
copolymers  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Elec. conductive polymer compns. for use in organic electronic

devices)  
RN 252975-59-0 HCPLUS  
CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
lithium salt (1:1) (CA INDEX NAME)



● Li

RN 252975-62-5 HCPLUS  
CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[trifluoromethyl)sulfonyl]-, lithium salt (1:1) (CA INDEX NAME)



● Li

INCL 252500000; 528423000; 528373000; 528360000; 528271000  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 76  
IT 252975-59-0D, copolymers 252975-62-5D,  
copolymers 1052730-93-4, 1,1-Difluoroethylene-2-[1,1-Difluoro-2-(trifluoromethyl)allyloxy]-1,1,2,2-tetrafluoroethanesulfonic acid  
copolymer 1052730-94-5, Ethylene-2-(2-(1,2,2-trifluorovinyloxy)-1,1,2,3,3-hexafluoropropoxy)-1,1,2,2-tetrafluoroethanesulfonic  
acid copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Elec. conductive polymer compns. for use in organic electronic  
devices)

L18 ANSWER 3 OF 8 HCPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 2007:912190 HCPLUS Full-text  
DOCUMENT NUMBER: 147:258760  
TITLE: Fluorinated acid polymer-containing transparent  
composite conductors having high work function  
INVENTOR(S): Hsu, Che-Hsiung; Smith, Eric Maurice; Lecloux,  
Daniel David; Yeisley, Shawn; Skulason, Hjalti  
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours and Company, USA  
SOURCE: PCT Int. Appl., 43pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2007092296	A2	20070816	WO 2007-US2858
			200702 02
WO 2007092296	A3	20080619	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA			
US 20080003449	A1	20080103	US 2007-700456
			200701 31
EP 1994119	A2	20081126	EP 2007-763641
			200702 02
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS			
JP 2009526351	T	20090716	JP 2008-553369
			200702 02
CN 101379162	A	20090304	CN 2007-80004265
			200808 01
KR 2008103062	A	20081126	KR 2008-721509
			200809 02
PRIORITY APPLN. INFO.:		US 2006-765031P	P
			200602 03
		WO 2007-US2858	W
			200702 02

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A transparent composite conductor having a work function > 5.0 eV comprises a first layer comprising a transparent conductive material, and a second layer comprising a fluorinated acid polymer. The transparent conductive material may be a mixed oxide, a metal, or a conductive polymer. Thus, a composite comprising an indium tin oxide layer coated with hydrolyzed homopolymer of perfluoro(4-methyl-3,6-dioxa-7-octene)sulfonyl fluoride (Mw=9900, Mn=4300, Tg=6.4°) had a work function of 6.18 eV.

IT 252975-63-6 252975-69-2

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorinated acid polymer-containing transparent composite conductors having high work function)

RN 252975-63-6 HCAPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[trifluoromethyl]sulfonyl]-, lithium salt (1:1), homopolymer (CA)

February 4, 2010

10/560,878

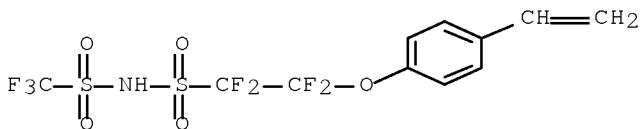
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INDEX NAME)

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CRN 252975-62-5

CMF C11 H8 F7 N O5 S2 . Li



● Li

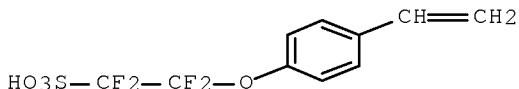
RN 252975-69-2 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



● Li

IC ICM B29D

CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 37, 76

IT 252975-63-6 252975-69-2

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluorinated acid polymer-containing transparent composite conductors  
having high work function)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS  
RECORD (1 CITINGS)

L18 ANSWER 4 OF 8 HCPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:1336827 HCPLUS Full-text

DOCUMENT NUMBER: 146:84641

TITLE: Solid electrolyte, its manufacture,  
membrane-electrode assembly (MEA), and fuel cell  
INVENTOR(S): Kaneko, Masayuki; Inasaki, Takeshi; Nomura,  
Kimiatsu

PATENT ASSIGNEE(S): Fujifilm Holdings Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

February 4, 2010

10/560,878

9

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006344587	A	20061221	JP 2006-133697	200605 12
PRIORITY APPLN. INFO.:			JP 2005-141504	A 200505 13

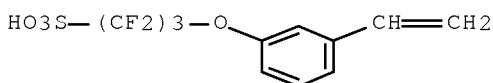
AB The solid electrolyte contains a polymer compound having a polymer obtained by graft-polymerizing a acid residue-containing polymerizable monomer as side chain; and is manufactured by graft-polymerizing the polymerizable monomer which has the acid residue in the main chain of the polymer compound. The MEA has a solid electrolyte membrane between a pair of gas diffusion electrodes; where the electrolyte membrane and/or the electrodes contains the above solid electrolyte. The fuel cell contains the above MEA.

IT 917392-61-1DP, r.p. with polyetherpolysulfones

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(manufacture of solid electrolytes containing graft polymers for membrane-electrode assemblies in fuel cells)

RN 917392-61-1 HCAPLUS

CN 1-Propanesulfonic acid, 3-(3-ethenylphenoxy)-1,1,2,2,3,3-hexafluoro-, lithium salt (1:1) (CA INDEX NAME)



● Li

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)

IT 25154-01-2DP, sulfonated, polymers with substituted styrenes

25667-42-9DP, sulfonated, polymers with substituted styrenes

113736-28-0P 917392-58-6P 917392-60-0DP, r.p. with

polyetherpolysulfones 917392-61-1DP, r.p. with

polyetherpolysulfones

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of solid electrolytes containing graft polymers for membrane-electrode assemblies in fuel cells)

L18 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:957151 HCAPLUS Full-text

DOCUMENT NUMBER: 138:311425

TITLE: Acid catalyst mobility in resist resins

AUTHOR(S): Stewart, Michael D.; Tran, Hoang Vi; Schmid, Gerard M.; Stachowiak, Timothy B.; Becker, Darren J.; Willson, C. Grant

CORPORATE SOURCE: Department of Chemical Engineering, The University of Texas at Austin, Austin, TX,

SOURCE: 78712, USA  
 Journal of Vacuum Science & Technology, B:  
 Microelectronics and Nanometer Structures  
 (2002), 20(6), 2946-2952  
 CODEN: JVTBD9; ISSN: 0734-211X

PUBLISHER: American Institute of Physics  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB In a chemical amplified resist absorbed photons generate stable catalyst mols. instead of directly switching resist solubility via photochem. reaction. This allows for much lower exposure doses to be used in imaging. Some catalyst mobility is necessary to achieve amplification since the catalyst must move from reaction site to reaction site, but a mobile catalyst can blur the deposited aerial image. Catalyst mols. that are free to move in exposed regions are also free to move into adjacent unexposed regions. Understanding acid catalyst diffusion in photoresist resins is complicated by the constantly changing chemical environment the diffusing catalyst experiences as the resist undergoes chemical reactions. The diffusing catalyst promotes chemical reactions which change the properties of its surrounding resin. In addition, it is possible a transient material state is generated by volatile reaction byproducts and their desorption from the film. In most photoresist systems it is impossible to sep. reaction and diffusion effects. This work describes studies of acid diffusion in polymers that are close structural analogs to reactive photoresist resins but do not react with the diffusing acidic catalyst. The purpose of this study into nonreactive polymer is to gain insight into the more complex, reactive systems. In addition, expts. with polymeric photoacid generators are reported. These materials provide added insight into acid transport in photoresist materials.

IT 252975-70-5D, dimethylphenylsulfonium ion exchange

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
 (polymeric photoacid generator; diffusion of acid mols. in polymers in relation to mobility of photogenerated acid in chemical amplified photoresists)

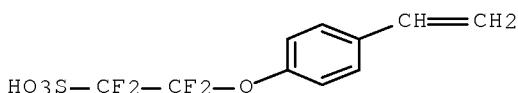
RN 252975-70-5 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li

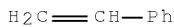


● Li

CM 2

CRN 100-42-5

CMF C8 H8



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 252975-70-5P, dimethylphenylsulfonium ion exchange  
 509100-87-2  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process) (polymeric photoacid generator; diffusion of acid mols. in polymers in relation to mobility of photogenerated acid in chemical amplified photoresists)  
 OS.CITING REF COUNT: 60 THERE ARE 60 CAPLUS RECORDS THAT CITE THIS RECORD (61 CITINGS)  
 REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2000:763572 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 134:42501  
 TITLE: Novel Aromatic Polymers with Pendant Lithium Perfluoroalkylsulfonate or Sulfonimide Groups  
 Feiring, Andrew E.; Choi, Susan K.; Doyle, Marc;  
 Wonchoba, Edward R.  
 CORPORATE SOURCE: Experimental Station, Central Research and Development, E. I. Du Pont de Nemours and Co.,  
 Wilmington, DE, 19880-0328, USA  
 SOURCE: Macromolecules (2000), 33(25), 9262-9271  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Styrenes with pendant lithium perfluoroalkyl ether sulfonate or sulfonimide groups readily homopolymerd. and copolymerd. with olefinic monomers to provide moderate to high mol. weight ionomers. Comonomers included styrene, Me methacrylate, acrylonitrile, and acrylates. In addition, soluble polymers containing both mobile lithium ions and immobilized tetraalkylammonium cations were prepared. Crosslinked polymers were obtained by copolymerization of the functionalized styrenes with difunctional comonomers or by cocuring with an unsatd. elastomer. Polyesters with pendant lithium perfluoroalkylsulfonate groups were obtained by condensation polymerization of functionalized isophthalate monomers with bis(hydroxyethyl)terephthalate. Surprisingly, most of the ethylene glycol units in the polymers were converted into polyethylene glycol segments during polymerization. Lithium ion conductivities of 10<sup>-4</sup>-10<sup>-3</sup> S/cm were shown by selected polymers in solution or as solvent swollen films.

IT 252975-63-6P 252975-69-2P  
 252975-70-5P 252975-71-6P 252975-72-7P  
 252975-73-8P 252975-74-9P 252975-77-2P  
 252975-79-4P 252975-81-8P 252975-82-9P  
 252975-83-0P 252975-85-2P 252975-87-4P  
 252975-95-4P 313242-72-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)

RN 252975-63-6 HCAPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-

February 4, 2010

10/560,878

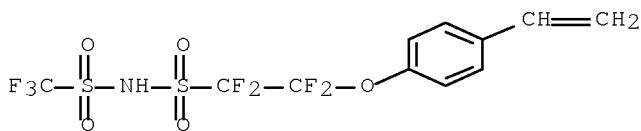
12

[(trifluoromethyl)sulfonyl]-, lithium salt (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 252975-62-5

CMF C11 H8 F7 N O5 S2 . Li



● Li

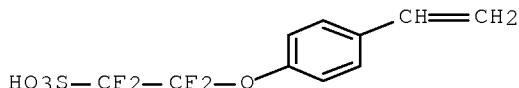
RN 252975-69-2 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



● Li

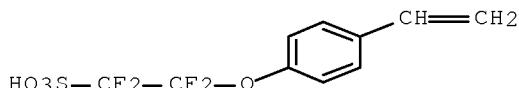
RN 252975-70-5 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

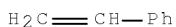
CMF C10 H8 F4 O4 S . Li



● Li

CM 2

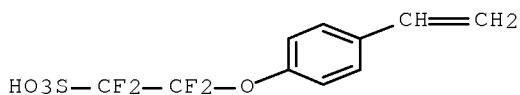
CRN 100-42-5  
 CMF C8 H8



RN 252975-71-6 HCPLUS  
 CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with ethenylbenzene and 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0  
 CMF C10 H8 F4 O4 S . Li



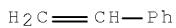
CM 2

CRN 107-13-1  
 CMF C3 H3 N



CM 3

CRN 100-42-5  
 CMF C8 H8



RN 252975-72-7 HCPLUS  
 CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene and lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

CM 1

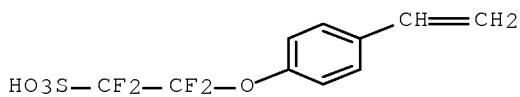
CRN 252975-59-0

February 4, 2010

10/560,878

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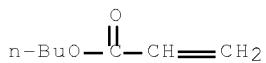
CMF C10 H8 F4 O4 S . Li



● Li

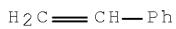
CM 2

CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 100-42-5  
CMF C8 H8

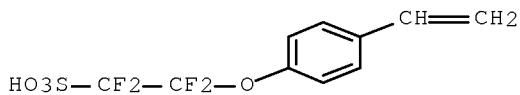


RN 252975-73-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

CM 2

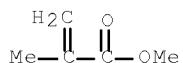
CRN 80-62-6

February 4, 2010

10/560,878

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CMF C5 H8 O2



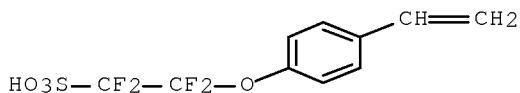
RN 252975-74-9 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



CM 2

CRN 107-13-1

CMF C3 H3 N



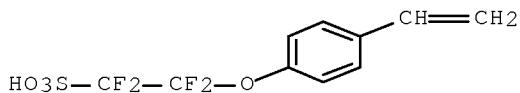
RN 252975-77-2 HCPLUS

CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



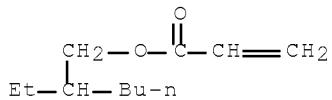
February 4, 2010

10/560,878

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CM 2

CRN 103-11-7  
CMF C11 H20 O2

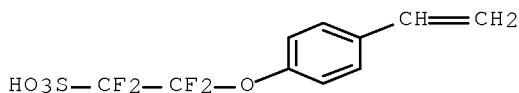


RN 252975-79-4 HCPLUS

CN 2-Propenoic acid, methyl ester, polymer with lithium  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA  
INDEX NAME)

CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

CM 2

CRN 96-33-3  
CMF C4 H6 O2

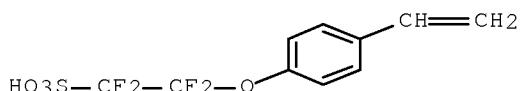


RN 252975-81-8 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)-  
 $\omega$ -ethoxypoly(oxy-1,2-ethanediyl) and  
 $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-  
1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

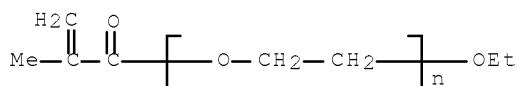
CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

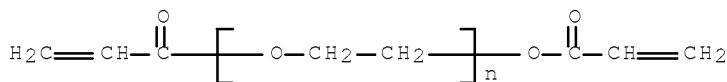
CM 2

CRN 35625-93-5  
CMF  $(\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_{10} \text{ O}_2$   
CCI PMS



CM 3

CRN 26570-48-9  
CMF  $(\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_6 \text{ O}_3$   
CCI PMS

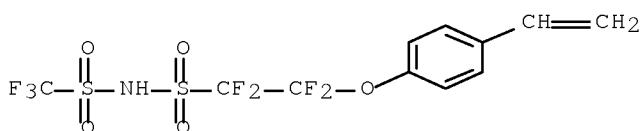


RN 252975-82-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt (9CI) (CA  
INDEX NAME)

CM 1

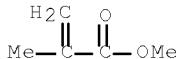
CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 80-62-6  
CMF C5 H8 O2

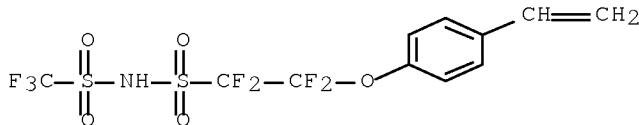


RN 252975-83-0 HCAPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

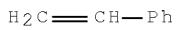
CRN 252975-62-5  
CMF C11 H8 F7 N 05 S2 . Li



Li

CM 2

CRN 100-42-5  
CMF C8 H8

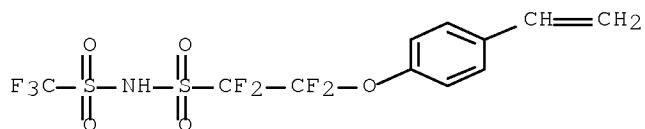


RN 252975-85-2 HCPLUS

CN 2-Propenoic acid, butyl ester, polymer with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt (9CI) (CA  
INDEX NAME)

CM 1

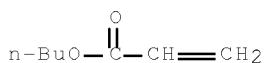
CRN 252975-62-5  
CMF C11 H8 F7 N 05 S2 . Li



● Li

CM 2

CRN 141-32-2  
CMF C7 H12 O2

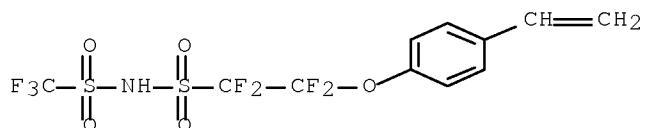


RN 252975-87-4 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -ethoxypoly(oxy-1,2-ethanediyl) and  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

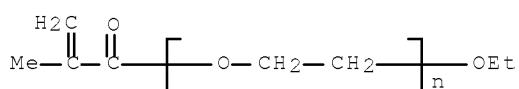
CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li



● Li

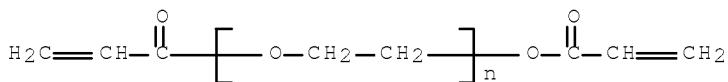
CM 2

CRN 35625-93-5  
CMF (C<sub>2</sub> H<sub>4</sub> O)<sub>n</sub> C<sub>6</sub> H<sub>10</sub> O<sub>2</sub>  
CCI PMS



CM 3

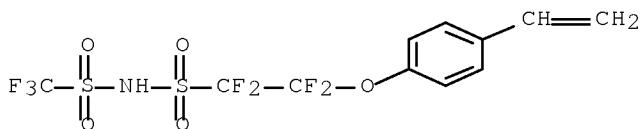
CRN 26570-48-9  
 CMF (C<sub>2</sub> H<sub>4</sub> O)<sub>n</sub> C<sub>6</sub> H<sub>6</sub> O<sub>3</sub>  
 CCI PMS



RN 252975-95-4 HCAPLUS  
 CN 2-Propenoic acid, butyl ester, polymer with  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
 (trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt and  
 lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate  
 (9CI) (CA INDEX NAME)

CM 1

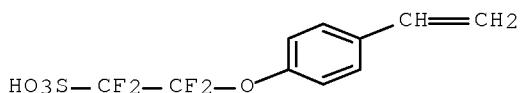
CRN 252975-62-5  
 CMF C<sub>11</sub> H<sub>8</sub> F<sub>7</sub> N O<sub>5</sub> S<sub>2</sub> . Li



Li

CM 2

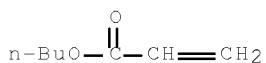
CRN 252975-59-0  
 CMF C<sub>10</sub> H<sub>8</sub> F<sub>4</sub> O<sub>4</sub> S . Li



Li

CM 3

CRN 141-32-2  
 CMF C<sub>7</sub> H<sub>12</sub> O<sub>2</sub>



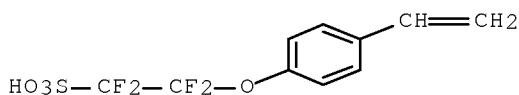
RN 313242-72-7 HCPLUS

CN 2-Propenoic acid, butyl ester, polymer with lithium  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA  
INDEX NAME)

CM 1

CRN 252975-59-0

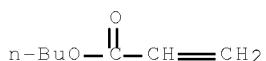
CMF C10 H8 F4 O4 S . Li



CM 2

CRN 141-32-2

CMF C7 H12 O2



IT 252988-95-7P 252988-97-9P

RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
(monomer; for synthesis of aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)

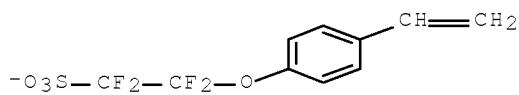
RN 252988-95-7 HCPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonic acid (1:1)  
(9CI) (CA INDEX NAME)

CM 1

CRN 252988-94-6

CMF C10 H7 F4 O4 S



CM 2

CRN 53867-17-7  
 CMF C12 H18 N  
 CCI IDS

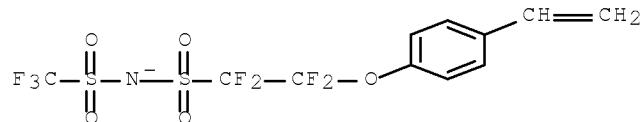
D1—CH=CH<sub>2</sub>Me<sub>3</sub><sup>+</sup>N—CH<sub>2</sub>—D1

RN 252988-97-9 HCPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
 (trifluoromethyl)sulfonyl]ethanesulfonamide (1:1) (9CI) (CA INDEX  
 NAME)

CM 1

CRN 252988-96-8  
 CMF C11 H7 F7 N O5 S2



CM 2

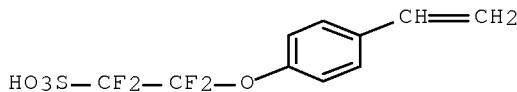
CRN 53867-17-7  
 CMF C12 H18 N  
 CCI IDS

D1—CH=CH<sub>2</sub>Me<sub>3</sub><sup>+</sup>N—CH<sub>2</sub>—D1

IT 252975-59-0 252975-62-5, Ethanesulfonamide,  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
 (trifluoromethyl)sulfonyl]-, lithium salt  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reactant; in preparation of monomer for synthesis of aromatic polymers  
 with pendant lithium perfluoroalkylsulfonate or sulfonimide  
 groups)

RN 252975-59-0 HCPLUS

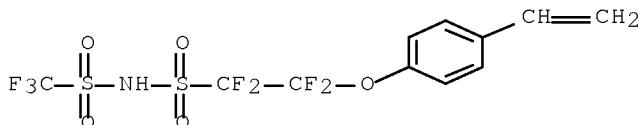
CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
 lithium salt (1:1) (CA INDEX NAME)



● Li

RN 252975-62-5 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
 (trifluoromethyl)sulfonyl]-, lithium salt (1:1) (CA INDEX NAME)



● Li

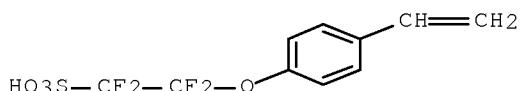
IT 252975-89-6P 313273-50-6P  
 313273-51-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP  
 (Preparation)  
 (synthesis of aromatic polymers with pendant lithium  
 perfluoroalkylsulfonate or sulfonimide groups)

RN 252975-89-6 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
 lithium salt, polymer with (chloromethyl)oxirane, oxirane and  
 [(2-propenyloxy)methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

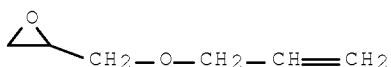
CRN 252975-59-0  
 CMF C10 H8 F4 O4 S . Li



● Li

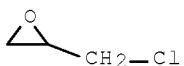
CM 2

CRN 106-92-3  
CMF C<sub>6</sub> H<sub>10</sub> O<sub>2</sub>



CM 3

CRN 106-89-8  
CMF C<sub>3</sub> H<sub>5</sub> Cl O



CM 4

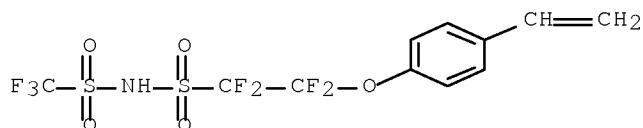
CRN 75-21-8  
CMF C<sub>2</sub> H<sub>4</sub> O



RN 313273-50-6 HCPLUS  
CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonic acid (1:1),  
polymer with 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt and methyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 252975-62-5  
CMF C<sub>11</sub> H<sub>8</sub> F<sub>7</sub> N O<sub>5</sub> S<sub>2</sub> . Li

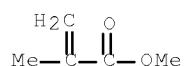


● Li

CM 2

CRN 80-62-6

CMF C5 H8 O2



CM 3

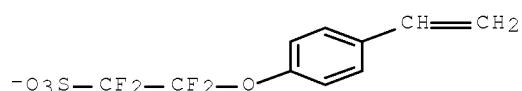
CRN 252988-95-7

CMF C12 H18 N . C10 H7 F4 O4 S

CM 4

CRN 252988-94-6

CMF C10 H7 F4 O4 S



CM 5

CRN 53867-17-7

CMF C12 H18 N

CCI IDS



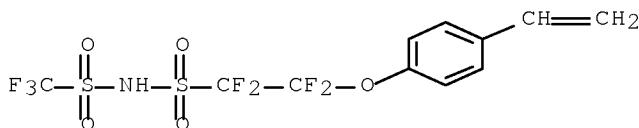
D1—CH=CH2

$\text{Me}_3^+\text{N—CH}_2\text{—D1}$

RN 313273-51-7 HCPLUS  
 CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
 [(trifluoromethyl)sulfonyl]ethanesulfonamide (1:1), polymer with  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
 [(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt and methyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

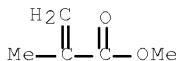
CRN 252975-62-5  
 CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 80-62-6  
 CMF C5 H8 O2

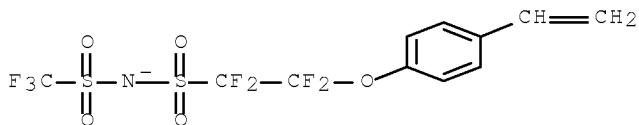


CM 3

CRN 252988-97-9  
 CMF C12 H18 N . C11 H7 F7 N O5 S2

CM 4

CRN 252988-96-8  
 CMF C11 H7 F7 N O5 S2



CM 5

CRN 53867-17-7  
 CMF C12 H18 N  
 CCI IDS



D1—CH=CH<sub>2</sub>

Me<sub>3</sub><sup>+</sup>N—CH<sub>2</sub>—D1

CC 35-4 (Chemistry of Synthetic High Polymers)  
 IT 252975-63-6P 252975-69-2P  
     252975-70-5P 252975-71-6P 252975-72-7P  
     252975-73-8P 252975-74-9P 252975-77-2P  
     252975-79-4P 252975-81-8P 252975-82-9P  
     252975-83-0P 252975-85-2P 252975-87-4P  
     252975-95-4P 313242-72-7P  
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
       (aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)  
 IT 252988-95-7P 252988-97-9P  
     RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)  
       (monomer; for synthesis of aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)  
 IT 26616-35-3 252975-59-0 252975-62-5,  
   Ethanесulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt  
     RL: RCT (Reactant); RACT (Reactant or reagent)  
       (reactant; in preparation of monomer for synthesis of aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)  
 IT 252975-89-6P 313242-73-8P 313242-74-9P  
     313273-50-6P 313273-51-7P  
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
       (synthesis of aromatic polymers with pendant lithium perfluoroalkylsulfonate or sulfonimide groups)

OS.CITING REF COUNT: 21 THERE ARE 21 CAPLUS RECORDS THAT CITE THIS RECORD (21 CITINGS)  
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 8 HCPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2000:565925 HCPLUS Full-text  
 DOCUMENT NUMBER: 133:350532  
 TITLE: Aromatic monomers with pendant  
       fluoroalkylsulfonate and sulfonimide groups  
 AUTHOR(S): Feiring, A. E.; Wonchoba, E. R.  
 CORPORATE SOURCE: Experimental Station, Central Research &

SOURCE: Development, E. I. Du Pont de Nemours and Co.,  
Wilmington, DE, 19880-0328, USA  
Journal of Fluorine Chemistry (2000), 105(1),  
129-135

PUBLISHER: CODEN: JFLCAR; ISSN: 0022-1139  
Elsevier Science S.A.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

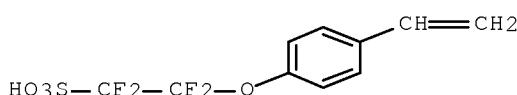
AB Novel styrene and di-Me isophthalate monomers with pendant lithium sulfofluoroalkoxy or sulfonimide functional groups have been prepared from the corresponding phenolic intermediates. One route involves several steps and uses 1,2-dibromotetrafluoroethane as the key fluorinated intermediate. A second route with fewer steps utilizes a perfluoroalkylsulfonyl-substituted vinyl ether as the source of the fluorinated substituents but affords a product with significantly higher equivalent weight

IT 252975-59-0P 252975-62-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(monomer; preparation of aromatic monomers with pendent sulfofluoroalkoxy and sulfonimide groups)

RN 252975-59-0 HCPLUS

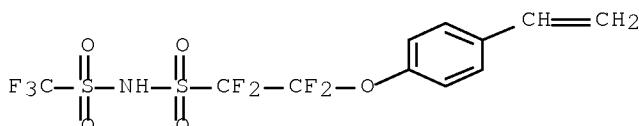
CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
lithium salt (1:1) (CA INDEX NAME)



● Li

RN 252975-62-5 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[trifluoromethyl)sulfonyl]-, lithium salt (1:1) (CA INDEX NAME)



● Li

CC 35-2 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 25

IT 252975-59-0P 252975-62-5P 252975-65-8P  
252975-68-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(monomer; preparation of aromatic monomers with pendent sulfofluoroalkoxy and sulfonimide groups)

OS.CITING REF COUNT: 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS  
RECORD (27 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE

## IN THE RE FORMAT

L18 ANSWER 8 OF 8 HCPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1999:819428 HCPLUS Full-text  
 DOCUMENT NUMBER: 132:50411  
 TITLE: Aromatic polymers with pendant fluorinated ionic groups  
 INVENTOR(S): Doyle, Christopher Marc; Fiering, Andrew Edward;  
 Choi, Susan Kuharcik  
 PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA  
 SOURCE: PCT Int. Appl., 59 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9967304	A1	19991229	WO 1999-US14397	199906 25
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2330792	A1	19991229	CA 1999-2330792	199906 25
AU 9947198	A	20000110	AU 1999-47198	199906 25
AU 752929	B2	20021003		
EP 1095071	A1	20010502	EP 1999-930717	199906 25
EP 1095071	B1	20040616		
R: DE, FR, GB, NL, FI				
JP 2003525957	T	20030902	JP 2000-555953	199906 25
MX 2000011676	A	20010629	MX 2000-11676	200011 27
PRIORITY APPLN. INFO.:			US 1998-90620P	P 199806 25
			US 1998-93226P	P 199807 17
			WO 1999-US14397	W 199906 25

AB The title invention discloses a class of unsatd. compds. including containing a fluoroether-substituted aromatic ring, polymers, including ionomers, formed therefrom, and processes for forming them. The compns. of the invention have particular suitability for use in electrochem. applications.

IT 252975-63-6P 252975-69-2P  
 252975-70-5P 252975-71-6P 252975-72-7P  
 252975-73-8P 252975-74-9P 252975-75-0P  
 252975-76-1P 252975-77-2P 252975-78-3P  
 252975-79-4P 252975-80-7P 252975-81-8P  
 252975-82-9P 252975-83-0P 252975-84-1P  
 252975-85-2P 252975-86-3P 252975-87-4P  
 252975-88-5P 252975-89-6P 252975-90-9P  
 252975-95-4P 252988-98-0P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(aromatic polymers with pendant fluorinated ionic groups)

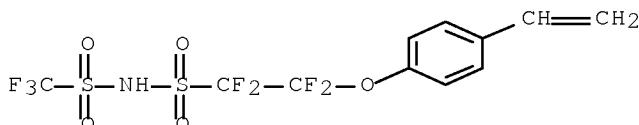
RN 252975-63-6 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 252975-62-5

CMF C11 H8 F7 N O5 S2 . Li



● Li

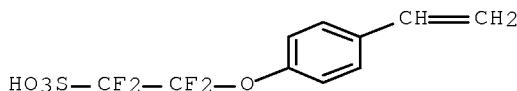
RN 252975-69-2 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt (1:1), homopolymer (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



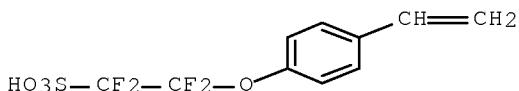
● Li

RN 252975-70-5 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



Li

CM 2

CRN 100-42-5  
CMF C8 H8

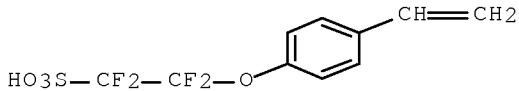
$$\text{H}_2\text{C}=\text{CH}-\text{Ph}$$

RN 252975-71-6 HCAPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
lithium salt, polymer with ethenylbenzene and 2-propenenitrile (9CI)  
(CA INDEX NAME)

CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



Li

CM 2

CRN 107-13-1  
CMF C3 H3 N

$$\text{H}_2\text{C}\equiv\text{CH}-\text{C}\equiv\text{N}$$

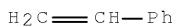
February 4, 2010

10/560,878

32

CM 3

CRN 100-42-5  
CMF C8 H8

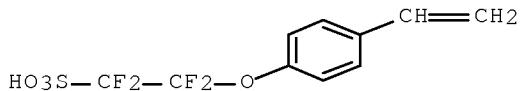


RN 252975-72-7 HCPLUS

CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene and lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

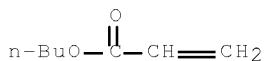
CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



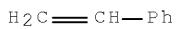
CM 2

CRN 141-32-2  
CMF C7 H12 O2



CM 3

CRN 100-42-5  
CMF C8 H8

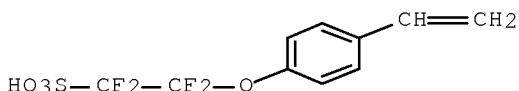


RN 252975-73-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

CM 1

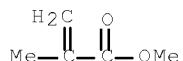
CRN 252975-59-0  
 CMF C10 H8 F4 O4 S . Li



● Li

CM 2

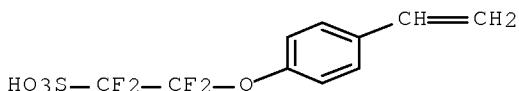
CRN 80-62-6  
 CMF C5 H8 O2



RN 252975-74-9 HCPLUS  
 CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0  
 CMF C10 H8 F4 O4 S . Li



● Li

CM 2

CRN 107-13-1  
 CMF C3 H3 N



RN 252975-75-0 HCPLUS  
 CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with dihydro-3-methylene-2(3H)-furanone (9CI)

February 4, 2010

10/560,878

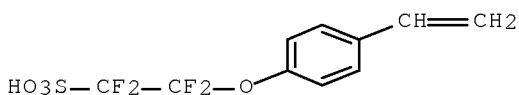
34

(CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li

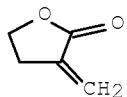


● Li

CM 2

CRN 547-65-9

CMF C5 H6 O2



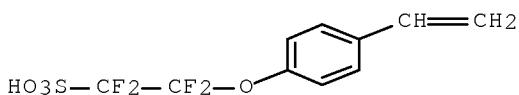
RN 252975-76-1 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -ethoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li



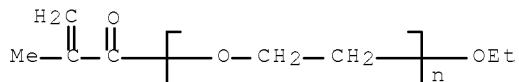
● Li

CM 2

CRN 35625-93-5

CMF (C<sub>2</sub> H<sub>4</sub> O)<sub>n</sub> C<sub>6</sub> H<sub>10</sub> O<sub>2</sub>

CCI PMS



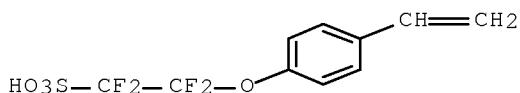
RN 252975-77-2 HCAPLUS

CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with lithium  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA  
INDEX NAME)

CM 1

CRN 252975-59-0

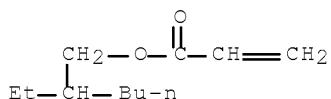
CMF C10 H8 F4 O4 S . Li



CM 2

CRN 103-11-7

CMF C11 H20 O2



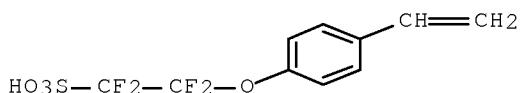
RN 252975-78-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester,  
polymer with butyl 2-propenoate and lithium  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA  
INDEX NAME)

CM 1

CRN 252975-59-0

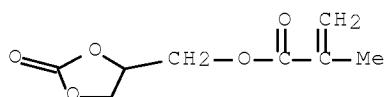
CMF C10 H8 F4 O4 S . Li



● Li

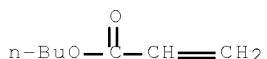
CM 2

CRN 13818-44-5  
CMF C8 H10 O5



CM 3

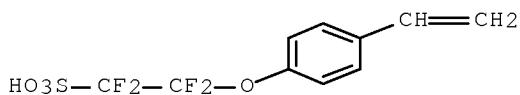
CRN 141-32-2  
CMF C7 H12 O2



RN 252975-79-4 HCPLUS  
CN 2-Propenoic acid, methyl ester, polymer with lithium  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate (9CI) (CA  
INDEX NAME)

CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

CM 2

CRN 96-33-3

CMF C4 H6 O2



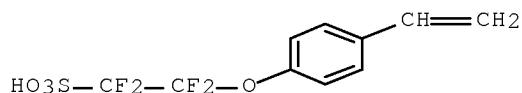
RN 252975-80-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl  
 di-2-propenoate and lithium 2-(4-ethenylphenoxy)-1,1,2,2-  
 tetrafluoroethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 252975-59-0

CMF C10 H8 F4 O4 S . Li

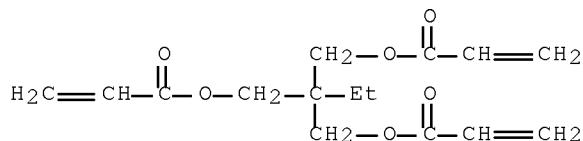


● Li

CM 2

CRN 15625-89-5

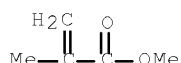
CMF C15 H20 O6



CM 3

CRN 80-62-6

CMF C5 H8 O2



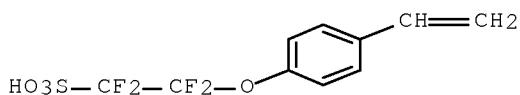
RN 252975-81-8 HCPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
 lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)-

$\omega$ -ethoxypoly(oxy-1,2-ethanediyl) and  
 $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-  
1,2-ethanediyl) (9CI) (CA INDEX NAME)

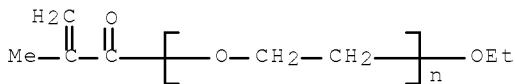
CM 1

CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



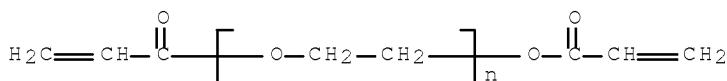
CM 2

CRN 35625-93-5  
CMF (C2 H4 O)n C6 H10 O2  
CCI PMS



CM 3

CRN 26570-48-9  
CMF (C2 H4 O)n C6 H6 O3  
CCI PMS

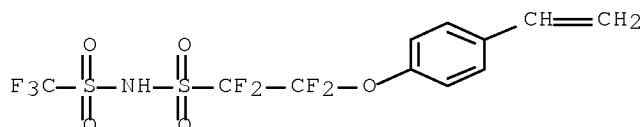


RN 252975-82-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt (9CI) (CA  
INDEX NAME)

CM 1

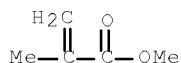
CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 80-62-6  
CMF C5 H8 O2

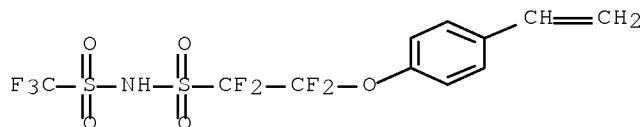


RN 252975-83-0 HCAPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

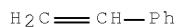
CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 100-42-5  
CMF C8 H8

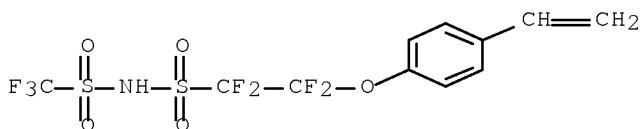


RN 252975-84-1 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt (9CI) (CA INDEX NAME)

CM 1

CRN 252975-62-5  
 CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 96-33-3  
 CMF C4 H6 O2

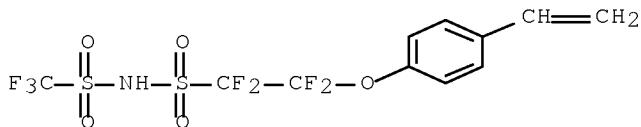


RN 252975-85-2 HCPLUS

CN 2-Propenoic acid, butyl ester, polymer with  
 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
 [(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt (9CI) (CA  
 INDEX NAME)

CM 1

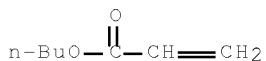
CRN 252975-62-5  
 CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 141-32-2  
 CMF C7 H12 O2



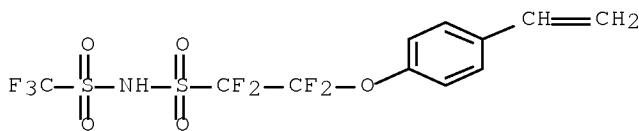
RN 252975-86-3 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -ethoxypoly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 252975-62-5

CMF C11 H8 F7 N O5 S2 . Li



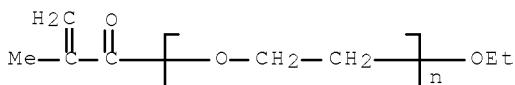
● Li

CM 2

CRN 35625-93-5

CMF (C2 H4 O)n C6 H10 O2

CCI PMS



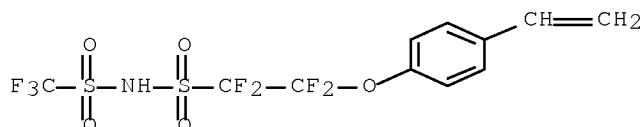
RN 252975-87-4 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -ethoxypoly(oxy-1,2-ethanediyl) and  $\alpha$ -(1-oxo-2-propenyl)- $\omega$ -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 252975-62-5

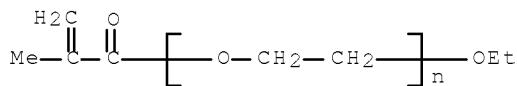
CMF C11 H8 F7 N O5 S2 . Li



● Li

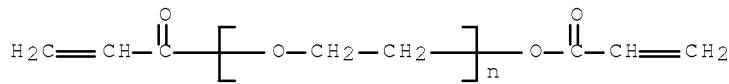
CM 2

CRN 35625-93-5  
CMF  $(\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_{10} \text{ O}_2$   
CCI PMS



CM 3

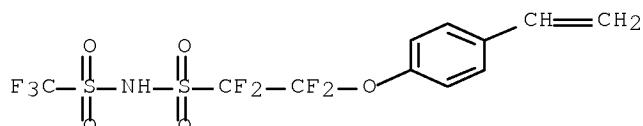
CRN 26570-48-9  
CMF  $(\text{C}_2 \text{ H}_4 \text{ O})_n \text{ C}_6 \text{ H}_6 \text{ O}_3$   
CCI PMS



RN 252975-88-5 HCPLUS  
CN 2-Propenoic acid, 2-methyl-, (2-oxo-1,3-dioxolan-4-yl)methyl ester,  
polymer with 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
[(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt and methyl  
2-propenoate (9CI) (CA INDEX NAME)

CM 1

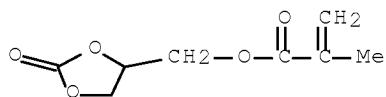
CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li



● Li

CM 2

CRN 13818-44-5  
CMF C8 H10 05



CM 3

CRN 96-33-3  
CMF C4 H6 O2

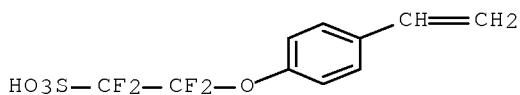


RN 252975-89-6 HCAPLUS

CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-, lithium salt, polymer with (chloromethyl)oxirane, oxirane and [(2-propenyoxy)methyl]oxirane (9CI) (CA INDEX NAME)

CM 1

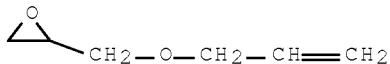
CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



Li

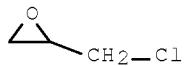
CM 2

CRN 106-92-3  
CMF C6 H10 O2



CM 3

CRN 106-89-8  
 CMF C3 H5 Cl O



CM 4

CRN 75-21-8  
 CMF C2 H4 O

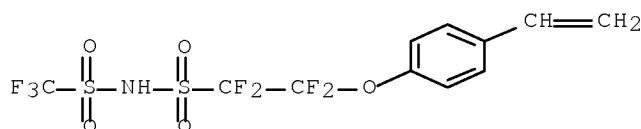


RN 252975-90-9 HCPLUS

CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[(trifluoromethyl)sulfonyl]-, lithium salt, polymer with (chloromethyl)oxirane, oxirane and [(2-propenyloxy)methyl]oxirane (9CI) (CA INDEX NAME)

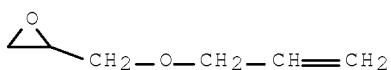
CM 1

CRN 252975-62-5  
 CMF C11 H8 F7 N O5 S2 . Li

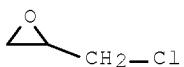


CM 2

CRN 106-92-3  
 CMF C6 H10 O2



CM 3

CRN 106-89-8  
CMF C3 H5 Cl O

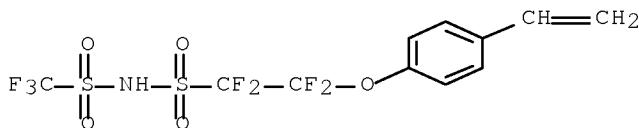
CM 4

CRN 75-21-8  
CMF C2 H4 O

RN 252975-95-4 HCPLUS

CN 2-Propenoic acid, butyl ester, polymer with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[  
(trifluoromethyl)sulfonyl]ethanesulfonamide lithium salt and  
lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate  
(9CI) (CA INDEX NAME)

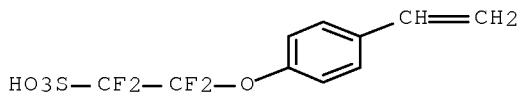
CM 1

CRN 252975-62-5  
CMF C11 H8 F7 N O5 S2 . Li

● Li

CM 2

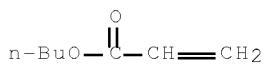
CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

CM 3

CRN 141-32-2  
CMF C7 H12 O2

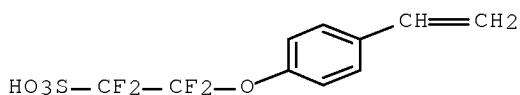


RN 252988-98-0 HCPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonic acid (1:1), polymer with lithium 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

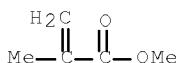
CRN 252975-59-0  
CMF C10 H8 F4 O4 S . Li



● Li

CM 2

CRN 80-62-6  
CMF C5 H8 O2

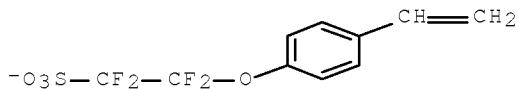


CM 3

CRN 252988-95-7  
 CMF C12 H18 N . C10 H7 F4 O4 S

CM 4

CRN 252988-94-6  
 CMF C10 H7 F4 O4 S



CM 5

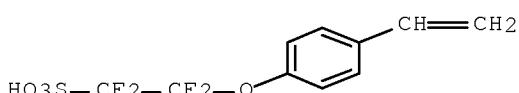
CRN 53867-17-7  
 CMF C12 H18 N  
 CCI IDS



D1-CH=CH2

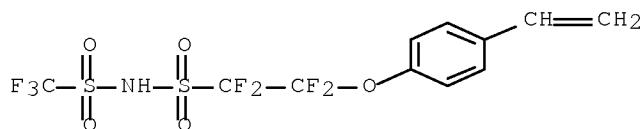
Me3+N-CH2-D1

IT 252975-59-0P 252975-62-5P  
 252988-95-7P 252988-97-9P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (aromatic polymers with pendant fluorinated ionic groups)  
 RN 252975-59-0 HCPLUS  
 CN Ethanesulfonic acid, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-,  
 lithium salt (1:1) (CA INDEX NAME)



● Li

RN 252975-62-5 HCPLUS  
 CN Ethanesulfonamide, 2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-[ (trifluoromethyl)sulfonyl]-, lithium salt (1:1) (CA INDEX NAME)



● Li

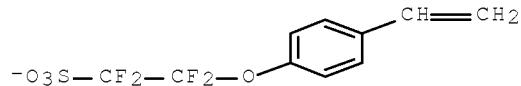
RN 252988-95-7 HCPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoroethanesulfonic acid (1:1)  
(9CI) (CA INDEX NAME)

CM 1

CRN 252988-94-6

CMF C10 H7 F4 O4 S



CM 2

CRN 53867-17-7

CMF C12 H18 N

CCI IDS



D1—CH=CH<sub>2</sub>

Me<sub>3</sub><sup>+</sup>N—CH<sub>2</sub>—D1

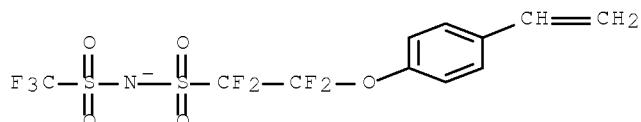
RN 252988-97-9 HCPLUS

CN Benzenemethanaminium, ar-ethenyl-N,N,N-trimethyl-, salt with  
2-(4-ethenylphenoxy)-1,1,2,2-tetrafluoro-N-  
[(trifluoromethyl)sulfonyl]ethanesulfonamide (1:1) (9CI) (CA INDEX  
NAME)

CM 1

CRN 252988-96-8

CMF C11 H7 F7 N O5 S2



CM 2

CRN 53867-17-7  
 CMF C12 H18 N  
 CCI IDS



D1-CH=CH2

Me3+N-CH2-D1

IC ICM C08F012-30  
 ICS C07C317-18; C08G063-688; C07C311-24; C07C309-11; H01M006-18;  
 H01M010-40; H01B001-12  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 76  
 IT 252975-63-6P 252975-69-2P  
 252975-70-5P 252975-71-6P 252975-72-7P  
 252975-73-8P 252975-74-9P 252975-75-0P  
 252975-76-1P 252975-77-2P 252975-78-3P  
 252975-79-4P 252975-80-7P 252975-81-8P  
 252975-82-9P 252975-83-0P 252975-84-1P  
 252975-85-2P 252975-86-3P 252975-87-4P  
 252975-88-5P 252975-89-6P 252975-90-9P  
 252975-91-0P 252975-92-1P 252975-95-4P  
 252988-98-0P  
 RL: IMF (Industrial manufacture); PRP (Properties); PREP  
 (Preparation)  
 (aromatic polymers with pendant fluorinated ionic groups)  
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 252975-59-0P 252975-60-3P 252975-61-4P  
 252975-62-5P 252975-65-8P 252975-66-9P 252975-67-0P  
 252975-68-1P 252988-95-7P 252988-97-9P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP  
 (Preparation); RACT (Reactant or reagent)  
 (aromatic polymers with pendant fluorinated ionic groups)  
 OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS  
 RECORD (8 CITINGS)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN  
 THE RE FORMAT

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